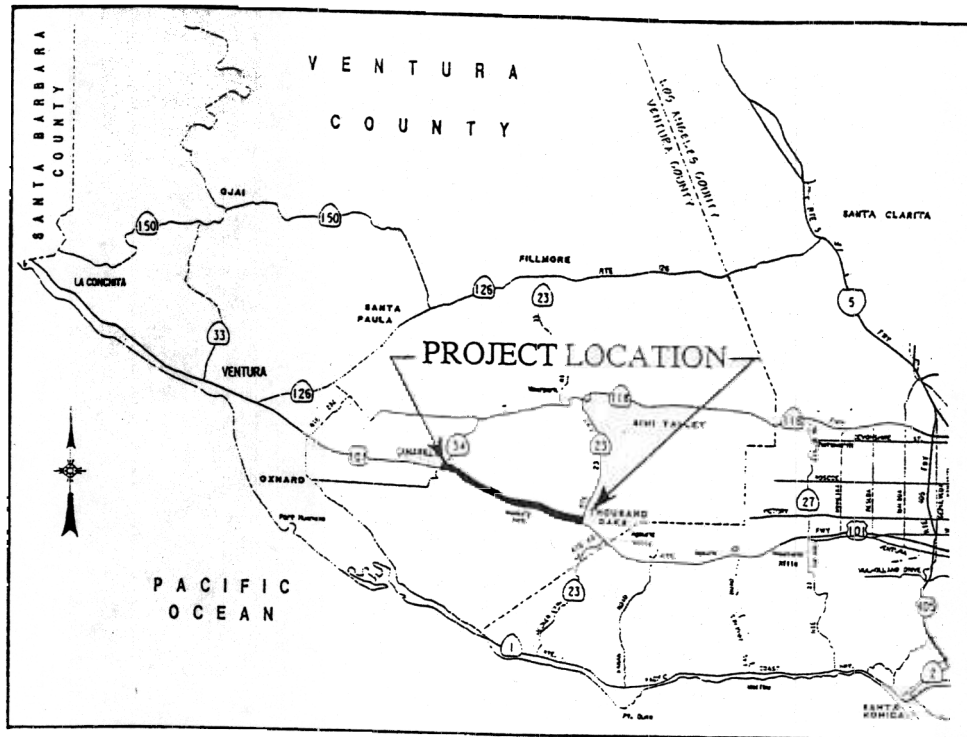


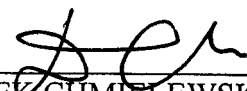
PROJECT STUDY REPORT



On Route VEN-101 (Ventura Freeway), between VEN-23 and VEN-34 (Lewis Road)

I have reviewed the right of way information contained in this Project Report and the R/W Data Sheet attached hereto, and find the data to be complete, current, and accurate.

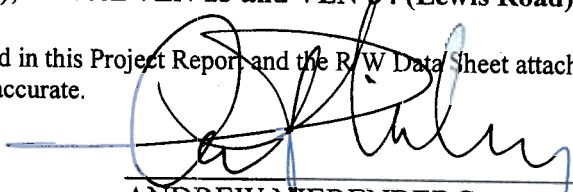
Approval Recommended:


DAREK CHMIELEWSKI, Project Manager
Office of Project Management – South

Approved:



DOUGLAS R. FAILING
District Director – District 7

9/30/05


ANDREW NIERENBERG
Right of Way Project Delivery Manager

Concurred:

 for
FRANK L. QUON
District Deputy Director-Operations


WILLIAM H. REAGAN
District Deputy Director-Design

REGISTERED ENGINEER'S CERTIFICATIONS

This Project Study Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained therein and is judging qualifications of any technical specialist providing engineering data upon which recommendations, conclusions, and decisions are based.

Edward Krause
REGISTERED CIVIL ENGINEER

June 4, 2004
DATE



I INTRODUCTION

It is proposed to construct a Traffic Congestion Relief Management System (TCRMS), Consisting of the installation of a fiber optic communications system, a changeable message sign (CMS), Closed Circuit Television (CCTV), Ramp Metering Systems (RMS), Traffic Monitoring Systems (TMS), a communications hub building, and miscellaneous field hardware at different freeway locations as identified on the attached Location of Field Elements Map. This project will install a portion of the District 7 TCRMS and is proposed to be funded from the SHOPP Mobility Transportation Management Systems Program (Program Code 315) at an estimated cost of \$9,600.00.

II BACKGROUND

The Route 101 (Ventura Freeway) is a six to eight lane facility running in a north-south direction in this project. The freeway serves as a primary commuter route for vehicles traveling between Ventura and Santa Barbara Counties and Los Angeles County. It also serves as a primary commuter route between Southern California and California's Central and Northern Coasts.

The weekly work generated commuting patterns result in traffic congestion southbound in the AM peak hour and northbound in the PM peak hour. Also, weekend and holiday generated commuting patterns result in congestion as Route 101 serves tourist locations in Ventura and Santa Barbara Counties.

This project is the part in a series of TCRMS projects being implemented to provide Caltrans District 7, the ability to manage traffic operations along Route 101 in Ventura County. This project will provide an important link to in the TCRMS infrastructure by providing a regional communication link to the Traffic Management Center (TMC).

III NEED AND PURPOSE

The existing TCRMS consists of a detailed, leased telephone line communication network, one CMS, one CCTV site, and a TMS. There are no existing RMS. The purpose of this project is to provide a TCRMS in the Route 101 corridor. This project will replace the telephone line communication network with a fiber optic communications system and to upgrade and complete the TCRMS (see Location Map in attachments).

This project will meet the objectives of the Department of Transportation Mission, Vision, Goals, Principles 2000 by the installation of additional ITS field elements on Route 101 in Ventura County.

The typical existing (2001) Average Daily Traffic (ADT) and (2025) projected (ADT) on Route 101 are shown in the following table. Traffic volumes are expected to increase by an average of 15 percent (15%) and truck volumes are expected to double.

Existing and Projected Average Daily Traffic (ADT)

Location	PM	ADT		% Truck	
		2001	2025	2001	2025
Moorpark Road	4.0	178,000	205,000	4.0	9.0
Wendy Drive	7.3	142,000	165,000	6.0	10.5
Lewis Road (Route 34)	13.9	130,000	155,000	5.5	10.0

Source: Office of Planning and Public Transportation

IV ALTERNATIVES

The “No-Build” Alternative was considered in developing and analyzing system alternatives, but was eliminated due to the existing operational problems being experienced on the project area freeway and the inability to accommodate traffic management activities without the proposed TCRMS elements. The current system of dedicated, leased telephone lines result in high initial capital cost and continuing maintenance problems for the State. Leased telephone lines do not have the capacity for transmission of real-time video, but only for compressed digital images at considerable expense to the State. Real-time video (compressed) has poor resolution quality and cannot be retransmitted to media and other agencies. The alternative methods of transmission would be either extremely costly, as with VSAT or through wireless communication, would have limited bandwidth, lack of ability to retransmit poor resolution quality, and difficulty in obtaining a license.

The “proposed project” alternative consists of a state-owned communications and TCRMS comprised of an optical fiber cable to accommodate the voice, data, and video requirements of the ITS. The elements of the TCRMS consist of CMS, CCTV cameras, ramp metering stations (RMS), traffic monitoring stations (TMS), weight-in-motion stations, and automatic irrigation control systems.

V SYSTEM PLANNING

The proposed project is identified as a Transportation Management Systems (TMS) project and as such is consistent with the plans, programs and goals of the Ventura County Transportation Commission (VCTC). It is the goal of the VCTC to incorporate the ITS infrastructure into programmed STIP projects along the Route 101 Freeway. This project is consistent with the Investment Level I Typed projects identified as part of the TOPS (Traffic Operations Strategies) planning process for the four southern districts (District 7, 8, 11, and 12).

There are three projects proposed to install a TCRMS along the Route 101 Freeway from Route 23, to the Santa Barbara County Line as shown in the following table:

ROUTE 101 – ITS PROJECTS

Project #	Project Limits	Length	Cost
24000K	Route 23 to Route 34	19.1 Km	\$ 9,600,000
174600	Route 34 to Route 126	21.4 Km	\$12,400,000
174600	Route 126 to Santa Barbara Co. Line	29.1 Km	\$ 5,200,000

A project is proposed to install a TCRMS from Route 27 in Los Angeles County to Route 23. The Project Report was approved on July 31, 2001.

VI HAZARDOUS MATERIAL/WASTE

There are no known existing waste sites within or immediately adjacent to the proposed project. A Preliminary Hazardous Site investigation will be performed prior to the design phase of this project.

VII TRAFFIC MANAGEMENT PLAN

The hours available for contractor's operations will be regulated to off-peak hours and detailed within the special provisions to minimize the impact on existing traffic flows. Special Provisions will regulate the contractor's operations in the event that ramp or lane closures are required and the traveling public will be informed of the time and location where such construction will take place. The majority of the work will require shoulder closures and will not affect traffic flows. Therefore, no significant delay is expected as a result of the construction of this project.

VIII ENVIRONMENTAL CLEARANCE

The project is categorically exempt under Class I, Section 1510.1c of Caltrans Environmental Regulations. The project will not increase vehicle carrying capacity in the Route 101 corridor; it will only improve efficiency allowing the traffic to flow better and reduce emission.

IX FUNDING SCHEDULING

The project will be funded from the SHOPP Program in the fiscal year 2008-2009. It is part of the District 7 Master Plan and the type of work is consistent with the SHOPP Mobility 315 TMS Program.

The milestone schedule for this project includes a Begin Design date of September 2004 a PS&E date of November 2007, an RTL date of February 2009, a Contract Award date of June 2009, and a Project Completion date of July 2011.

X DISTRICT CONTACT

EDWARD KRAUSE, Project Engineer (Project Delivery) Office of ITS Development	CalNet 647-0270
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JACQUELINE C. TAN, Senior Design Engineer Office of ITS Development	CalNet 647-4698
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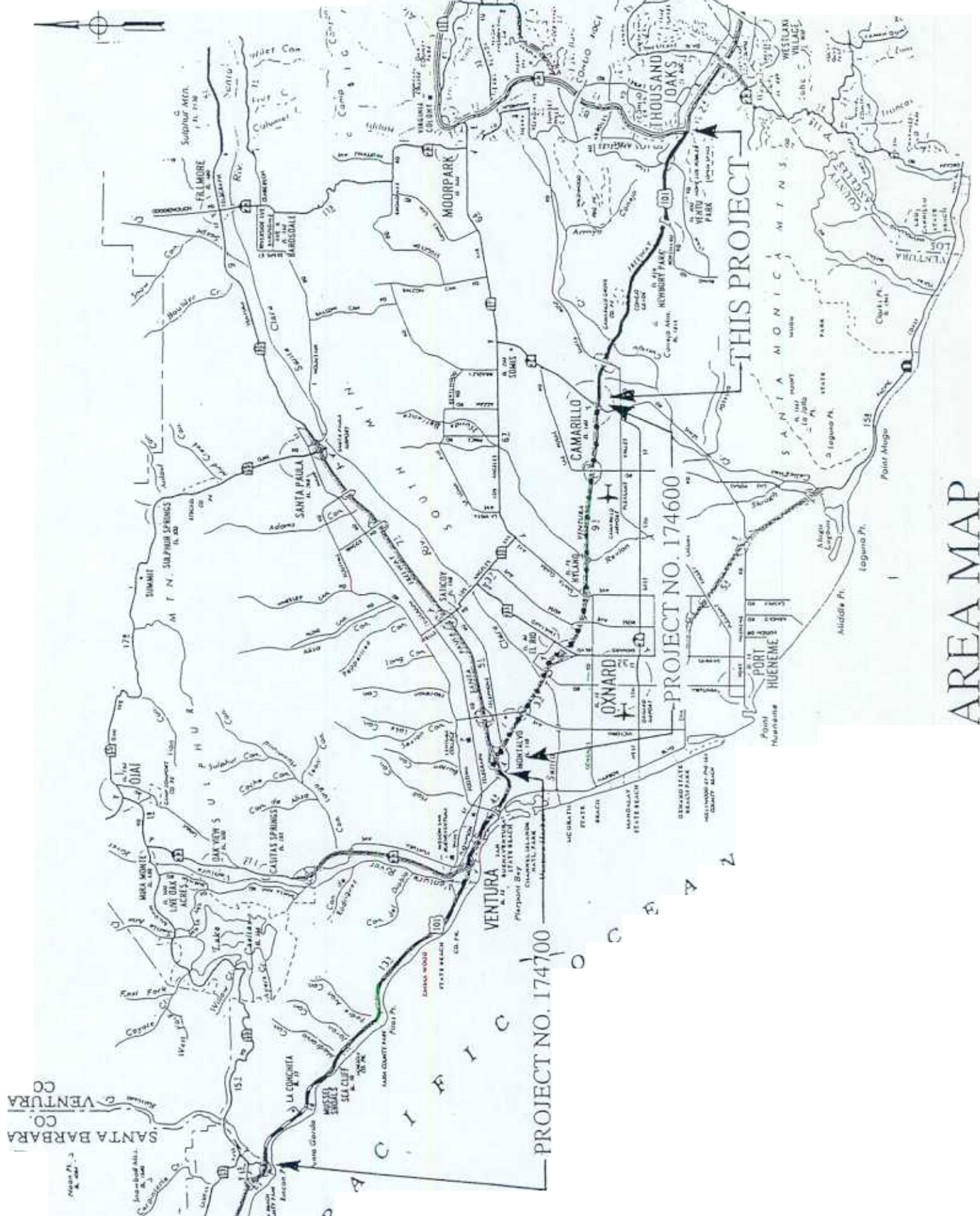
DAREK CHMIELEWSKI, Project Manager Office of Project Management-South	CalNet 647-8485
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XI ATTACHMENTS

- Area Map
- Location Map
- ITS Elements Cross-Section
- CCTV and CMS Location
- Cost Estimate
- Categorical Exemption
- R/W Data Sheet

Filename: PSR VEN-101 KP 3 5-22 6 - EK

SANTA BARBARA CO
VENTURA CO

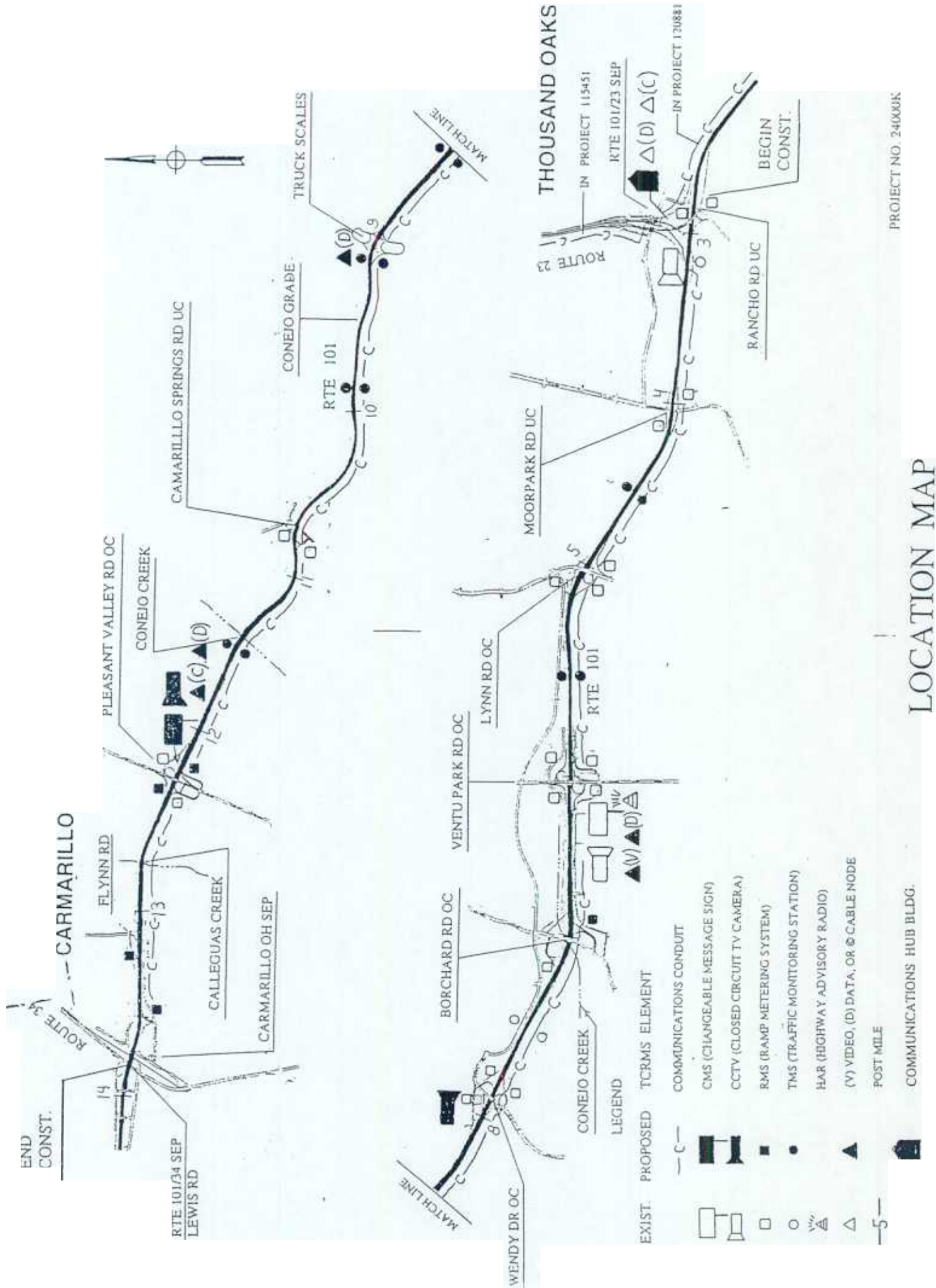


PROJECT NO. 174700

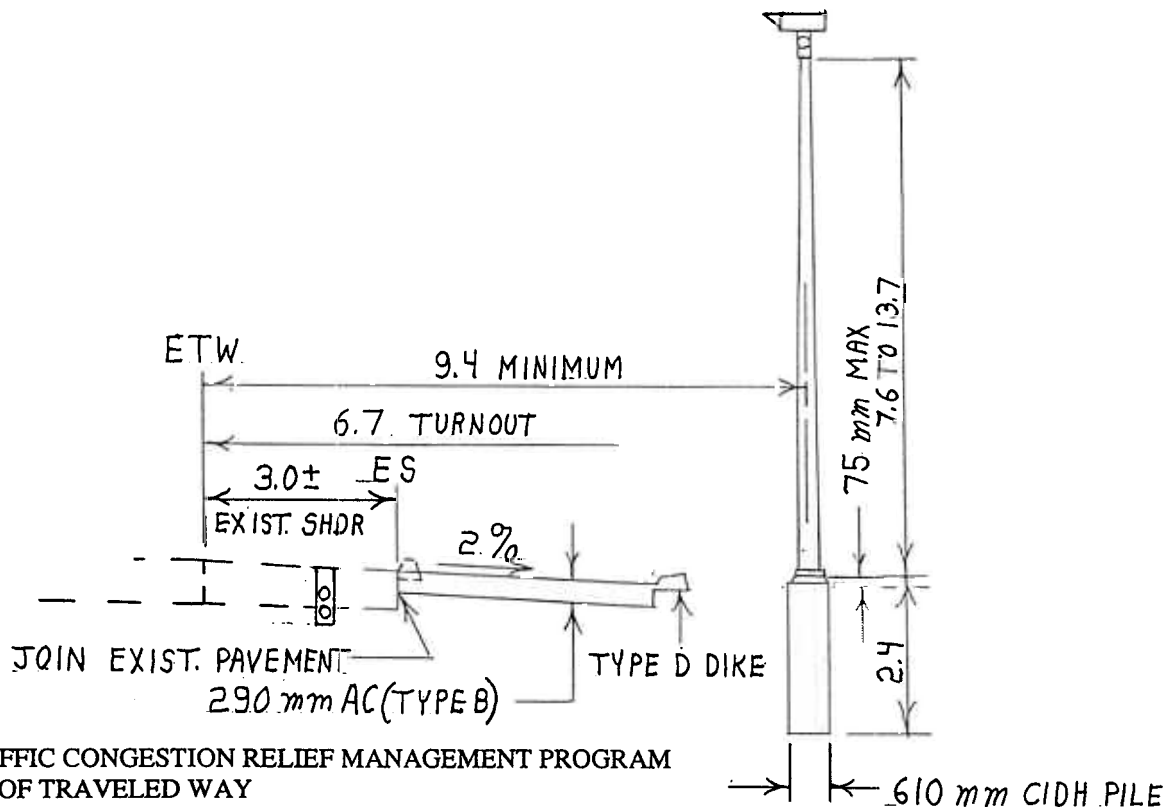
PROJECT NO. 174600

THIS PROJECT

AREA MAP



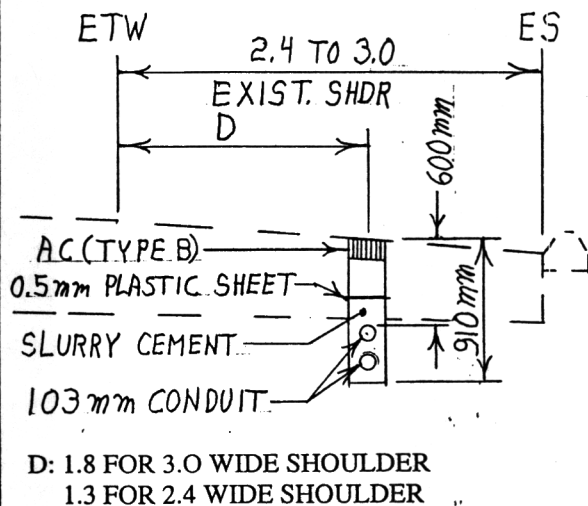
TCRMS ELEMENTS CROSS SECTIONS



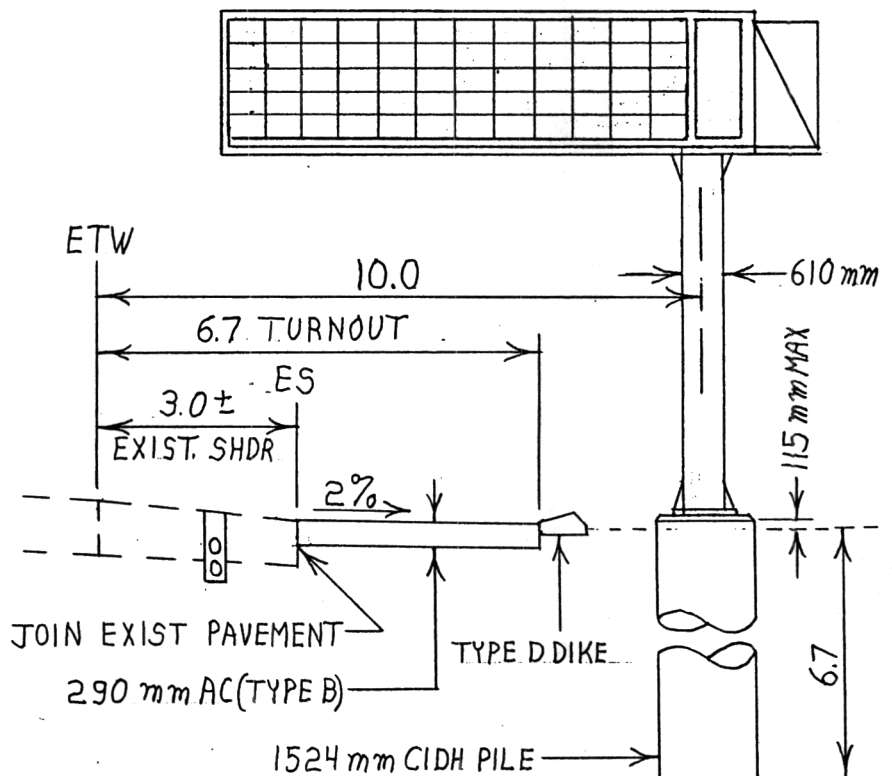
TCRMS: TRAFFIC CONGESTION RELIEF MANAGEMENT PROGRAM
 ETW: EDGE OF TRAVELED WAY
 ES: EDGE OF SHOULDER
 ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION LOCATION

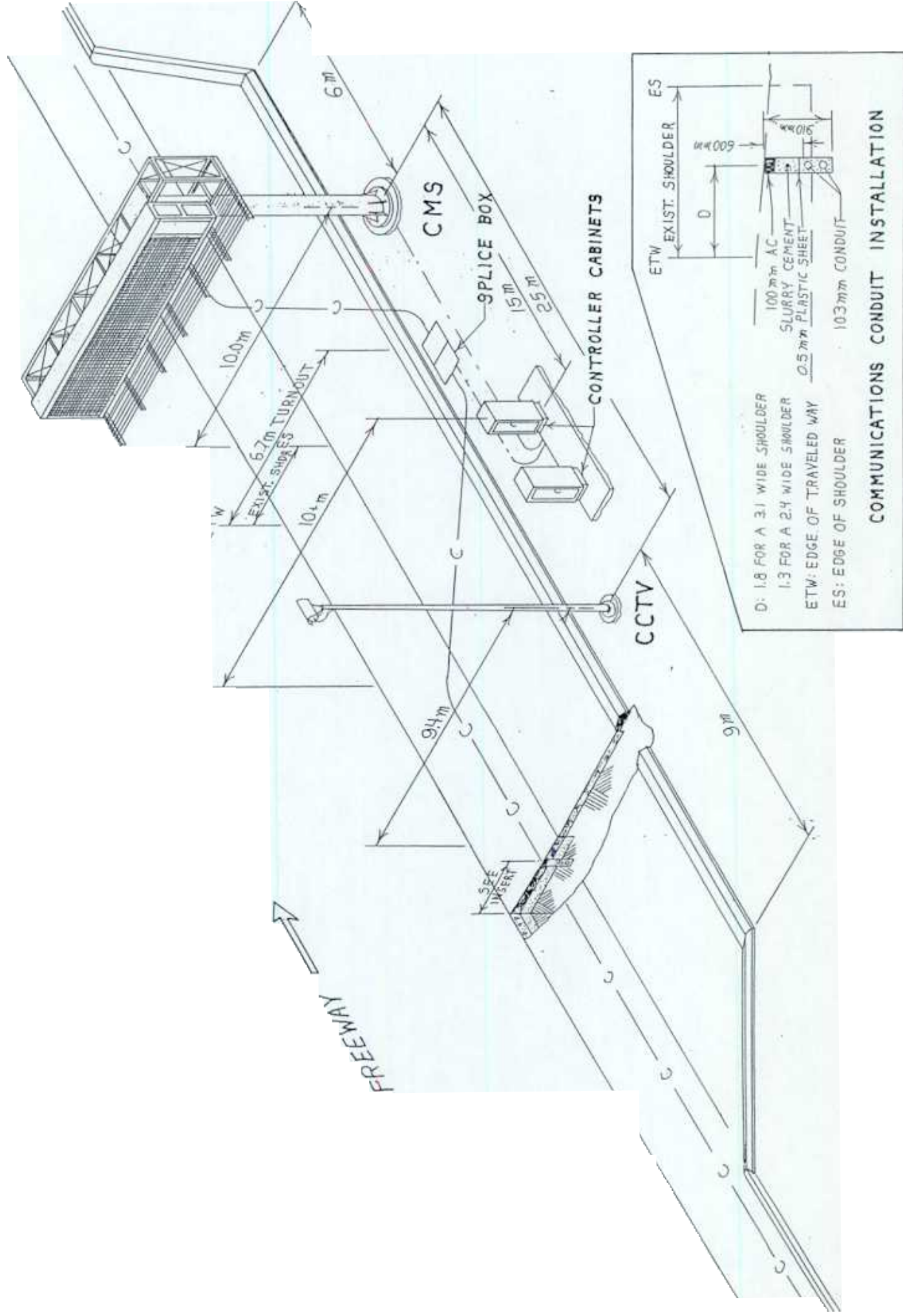
COMMUNICATION CONDUIT INSTALLATION



NOTE: THE PLASTIC SHEET WILL WORK AS A BREAKING PLANE TO REDUCE FUTURE DISTURBANCE DUE TO PAVEMENT REHABILITATION



CHANGEABLE MESSAGE SIGN



CCTV AND CMS LOCATION

PROJECT STUDY REPORT COST ESTIMATE SUMMARY



07-VEN-101
SHOPP Mobility TMS Program
KP 3.5/22.5 (PM 3.0/13.8)
EA 24000K
PP No. 3306

Project Description:

Limits In Ventura County, on Ven 101 from Route 23 to
to Route 34 (Lewis Road) and NHD Communication HUB
and TMC

EA/Program 24000K

Proposed Install CCTV & Communications System
Improvement (Scope)

Phase

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	<u>\$9,506,000</u>
TOTAL STRUCTURE ITEMS	<u>\$100,000</u>
SUBTOTAL CONSTRUCTION COSTS	<u>\$9,606,000</u>
TOTAL RIGHT OF WAY ITEMS (Cert. Date 3/1/02)	<u>\$0</u>
TOTAL PROJECT CAPITAL OUTLAY COST	<u>\$9,600,000</u>

Reviewed by District Program Manager

(Signature)

Date

8/12/04

Approved by Project Manager

(Signature)

Date

08/12/04

Phone No. (213) 897-8485

07-VEN-101
SHOPP Mobility TMS Program
KP 3.5/22.5 (PM 3.0/13.8)
EA 24000K
PP No. 3306

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Maintenance Turnout ⁽¹⁾	2	EA	\$25,000	\$50,000	
Clearing & Grubbing	1	LS	\$20,000	\$20,000	
Maintenance Turnout ⁽²⁾	24	EA	\$20,000	\$480,000	
Subtotal Earthwork					\$550,000
Section 2 Pavement Structural Section					
Subtotal Pavement Structural Section					\$0
Section 3 Drainage					
Subtotal Drainage					\$0

(1) MAINTENANCE TURNOUT AREA FOR CCTV CAMERA AND CMS LOCATIONS (INCLUDES MBGR, RETAINING WALL AND DIKE).

(2) MAINTENANCE TURNOUT AREA FOR RMS, TMS, AND NODE LOCATIONS.

07-VEN-101
 SHOPP Mobility TMS Program
 KP 3.5/22.5 (PM 3.0/13.8)
 EA 24000K
 PP No. 3306

<u>Section 4 Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Irrigation Modification	1	LS	\$40,000	\$40,000	
Highway Planting	3	EA	\$3,000	\$9,000	
Water Pollution Control	1	LS	\$100,000	\$100,000	
Hazardous Waste Mitigation (Aerially Deposited Lead Soil)	1	LS	\$100,000	\$100,000	
Resident Engineer Office	1	LS	\$220,000	\$220,000	
Contractor's Lead Compliance Plan	1	LS	\$5,000	\$5,000	
Subtotal Specialty Items					<u>\$474,000</u>
<u>Section 5 Traffic Items</u>					
Communication Conduit ⁽³⁾	17,400	M	\$160	\$2,784,000	
CCTV Camera	2	EA	\$45,000	\$90,000	
CCTV Camera Upgrade	2	EA	\$15,000	\$30,000	
TMS/RMS	11	EA	\$35,000	\$385,000	
Exist RMS/TMS Upgrade	20	EA	\$10,000	\$200,000	
CMS	1	EA	\$200,000	\$200,000	
Cable Node	1	EA	\$15,000	\$15,000	
Video Node	1	EA	\$60,000	\$60,000	
Data Node	3	EA	\$55,000	\$165,000	
Traffic Signal Interface	11	EA	\$20,000	\$220,000	
Communicaitons Hub	1	EA	\$500,000	\$500,000	
Misc. Electrical ⁽⁴⁾	1	LS	\$200,000	\$200,000	
System Testing & Documentation	1	LS	\$50,000	\$50,000	
Traffic Management Plan	.	LS	\$250,000	\$250,000	
Subtotal Traffic Items					<u>\$5,149,000</u>
TOTAL SECTIONS 1 thru 5					<u>\$6,173,000</u>

(3) ESTIMATE INCLUDES CONDUITS, CABLES, PULL BOXES, SPLICE CLOSURES,
 INNERDUCTS, TRAINING, AND EQUIPMENT AT HUB.

(4) INCLUDES PULL BOXES, POWER SERVICE, JACKED CONDUIT, ELECTRICAL WORK AT TMC,
 AND MAINTAIN EXISTING ELECTRICAL SYSTEM.

07-VEN-101
SHOPP Mobility TMS Program
KP 3.5/22.5 (PM 3.0/13.8)
EA 24000K
PP No. 3306

Section 6 Minor Items

Item Cost

Section Cost

Subtotal Sections 1 thru 5	<u>\$6,173,000</u>	x (10%)	<u>\$617,300</u>
----------------------------	--------------------	---------	------------------

TOTAL MINOR ITEMS	\$617,300
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Section 7 Roadway Mobilization

Subtotal Sections 1 thru 5	\$6,173,000		
Minor Items	\$617,300		
Sum	\$6,790,300	x (5%)	= \$339,515

TOTAL ROADWAY MOBILIZATION	\$339,515
----------------------------	-----------

Section 8 Roadway Additions

Supplemental Work			
Subtotal Sections 1 thru 5	\$6,173,000		
Minor Items	\$617,300		
Sum	\$6,790,300	x (10%)	= \$679,030

TOTAL ROADWAY ADDITIONS	\$2,376,605
-------------------------	-------------

TOTAL ROADWAY ITEMS	\$9,506,000
(Subtotal Sections 1 thru 8)	

Estimate Prepared By Ed Krause Phone # (213) 897-0270 DATE June 3, 2004
(Print Name)

Estimate Checked By Jackie Tan Phone # (213) 897-4698 DATE June 3, 2004
(Print Name)

07-VEN-101
SHOPP Mobility TMS Program
KP 3.5/22.5 (PM 3.0/13.8)
EA 24000K
PP No. 3306

II-STRUCTURES ITEMS

STRUCTURE

Conduit Installation on Structure \$100,000

SUBTOTAL STRUCTURES ITEMS \$100,000

Railroad Related Costs N/A N/A N/A

TOTAL STRUCTURES ITEMS \$100,000

USE \$100,000

COMMENTS

Estimate Prepared By Ed Krause

Phone # (213) 897-0270

07-VEN-101
SHOPP Mobility TMS Program
KP 3.5/22.5 (PM 3.0/13.8)
EA 24000K
PP No. 3306

III. RIGHT OF WAY ITEMS

**ESCALATED
VALUE**

- A. Acquisition, including excess lands,
damages to remainder(s) and Goodwill
- B. Utility Relocation (State share)
- C. Relocation Assistance
- D. Clearance/Demolition
- E. Title and Escrow Fees

TOTAL RIGHT OF WAY ITEMS _____ **\$0**
(Escalated Value)

Anticipated Date of Right of Way Certification _____
(Date to which Values are Escalated)

F. Construction Contract Work

Brief Description of Work:

Right of Way Branch Cost Estimate for Work _____

COMMENTS:

Estimate Prepared By: _____ Phone# _____
(Print Name) _____ **DATE**

**CATEGORICAL EXEMPTION
CATEGORICAL EXCLUSION/PROGRAMMATIC CATEGORICAL EXCLUSION
DETERMINATION FORM**

07-VEN-101

Dist.-Co.-Rte. (or Local Agency)

3.5/22.6 (3.0/13.8)

K.P./K.P.(P.M./P.M.)

24000K

E.A. (State project)

200503024

CE Number

PROJECT DESCRIPTION: (Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

The proposed project is located on US-101 between SR-23 and Lewis Road (SR-34) in the County of Ventura. The improvements would include the installation of a Traffic Congestion Relief Management System (TCRMS) which would consist of the installation of fiber optic communication system, a Changeable Message Signs (CMS), Closed Circuit Television (CCTV) Ramp Metering System (RMS), Traffic Monitoring Systems (TMS), and miscellaneous field hardware at various locations. The proposed construction would involve minimal excavation (<two meters) and all work would be done within existing state right-of-way.

CEQA COMPLIANCE (for State Projects only)

Based on examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION

☐ Exempt by Statute (PRC 21080)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☒ **Categorically Exempt** Class 1f, or ☐ **General Rule exemption** (This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment [CCR 15061(b)(3)])

Signature: Environmental Office Chief

Date

Signature: Project Manager

Date

NEPA COMPLIANCE (23 CFR 771.117)

Based on examination of this proposal, supporting information, and the following statements.

- This project does not have a significant impact on the environment as defined by the NEPA.
- This project does not involve substantial controversy on environmental grounds.
- This project does not involve significant impacts on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act.
- In nonattainment or maintenance areas for Federal air quality standards: this project comes from a currently conforming plan and Transportation Improvement Program or is exempt from regional conformity.
- This project is consistent with all Federal, State, & local laws, requirements or administrative determinations relating to the environmental aspects of this action.

CALTRANS NEPA DETERMINATION

Based on an examination of this proposal, supporting information, and the statements above under "NEPA Compliance", it is determined that the project is a:

☒ **Programmatic Categorical Exclusion (PCE):** Based on the evaluation of this project and supporting documentation in the project files, all the conditions of the November 18, 2003 Programmatic Categorical Exclusion have been met.

☐ **Categorical Exclusion (CE):** For actions that do not individually or cumulatively have a significant environmental effect and are excluded from the requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Require FHWA determination

Signature: Environmental Office Chief
(for all State & Local CEs)

Date

Signature: Project Manager

(PM: for all State CEs / DLAE: for Local Asst. PCEs)

Date

FHWA DETERMINATION (if applicable)

Based on the evaluation of this project and the statements above, it is determined that the project meets the criteria of and is properly classified as a Categorical Exclusion.

N/A

Signature: FHWA Transportation Engineer

Date

☐ Additional information attached or referenced

CATEGORICAL EXEMPTION
CATEGORICAL EXCLUSION/PROGRAMMATIC CATEGORICAL EXCLUSION
DETERMINATION FORM
CONTINUATION SHEET

) The following conditions for **Cultural Resources** shall apply:

- Should any cultural resources be encountered during construction, all work in the area of the discovery must stop until the on-site monitor can evaluate the nature and significance of the find.

2) The following conditions for **Biological Resources** shall apply:

- A pre-construction survey of the project limits should be conducted by the District Biologist no more than one week in advance of the start of construction for each project segment. Additionally, detailed plans showing the exact locations of the TCMRS should be provided to the District Biologist for review as soon as they are available for further study on the placement of project components.
- Removal of protected tree species observed along the project limits, such as oak species, should be avoided as much as practicable. Any unavoidable removal of protected tree species, such as oak trees, shall be replaced at a replacement ratio consistent with state or local tree protection policies.
- Clearing and grubbing of vegetation for the installation of CCTV cameras, CMS, maintenance pull-outs, or any other component occurring beyond the shoulder should be conducted outside of the bird-nesting season, which occurs **between February 15th and September 1st**. This measure is necessary to avoid affects to nesting birds, which are protected under the Federal Migratory Bird Treaty Act and California Department of Fish and Game Codes. If the clearing and grubbing of vegetation cannot be avoided during the nesting bird season, a nesting bird survey will be necessary within one week prior to the start of construction. The District Biologist should be consulted as soon as possible if clearing and grubbing cannot be avoided during the bird-nesting season to schedule surveys or discuss alternative avoidance measures.
- All applicable water quality Best Management Practices (BMPs) should be implemented when working over or adjacent to the drainages along the project limits to avoid affects on water quality. Discharges of fill, pavement cuttings, concrete or other construction debris into a drain inlet or creek would result in a violation of the Federal Clean Water Act.

TO Jacqueline C Tan
ATTN Edward Krause
PHONE 213-897-0270
SENIOR R/W P&M
ROUTE VEN-101
PM_KM 3.0/13.8,3.5/22.5
EA 24000K
ALT

R/W DATA SHEET

Date of Data Sheet
WBS
REVISED
UPDATED
PROJ_DESC CCTV & Communications System

ID NO
1036

This cost estimate is pursuant to the following statements which are based on information provided by Jacqueline C Tan.

This cost estimate is valid for the above scoping report only. This is an estimate only and not an appraisal. It may be based on worse case scenarios. The estimate is subject to change and revision.

The mapping did not provide sufficient nor adequate detail to determine the limits of the Right of Way required and effects on the improvements.

The transportation facilities have not been sufficiently designed for our estimator to determine the damages to any of the remainder parcels affected by the project.

Residential displacement is not involved

Utility facilities or Utility Right of Way are not affected.

Railroad facilities or R.R. Right of Way are not affected.

Right of Way work will not be performed by Caltrans staff.

It is not known at this time whether there are any material borrow and/or disposal sites are required.

There are no potential relinquishments and/or abandonments.

There are potential hazardous waste parcels

Time constraints precluded a detailed cost estimate.

The time schedule provided by the requesting party allowed for a field inspection.

RW COST ESTIMATE

	CURRENT VALUE	ESCALATED VALUE
R/ w acq.(incl.contingency G.w-condem.-adm.s'tl.)Permits	NONE	NONE
Clearance	NONE	NONE
RAP (cont rate.)	NONE	NONE
Escrow costs (cont rate.)	NONE	
Utility relocation costs	NONE	
Total estimated cost	NONE	

NO RIGHT OF WAY

ESCALATION RATE RW .07

ESCALATION RATE Utilities

CERT.DATE 3/1/05

According to Edward Krause, no RW is required for this job.

PARCEL COUNT

ESTIMATE OF PY'S

UTILITY INFORMATION

RR INFORMATION

ESTIMATED COST TO THE STATE FOR ALL R.R. INVOLVEMENTS.

\$0

		<u>DATE</u>
Right of Way Estimate prepared by	<u>STEVE FLORES</u>	<u>1/17/05</u>
Railroad Estimate prepared by	<u>Bob Thorpe</u>	<u>2/7/05</u>
Utilities Estimate prepared by	<u>Butch Mateo</u>	<u>9/7/05</u>

I have personally reviewed this R/W Data Sheet and all supporting information I certify that the probable highest and best use estimated values and assumptions are reasonable and proper subject to the limiting conditions set forth and I find this Data Sheet complete and current.

This Data Sheet is not to be signed by Chief unless accompanied by final scoping report(PR,PSR,PSSR) for review and/or signature.

CHIEF _____

ADDITIONAL UTILITIES
